SERVICE MANUAL



VersaOven™ Installation Manual

BV400G	**ML-132527**	**NATURAL GAS, 10-PAN RACK**
	ML-132528	**PROPANE, 10-PAN RACK**
	ML-132575	**NATURAL GAS, 5-PAN RACK**

- NOTICE -

This Manual is prepared for the use of trained Baxter Service Technicians and should not be used by those not properly qualified.

This manual is not intended to be all encompassing. If you have not attended a Baxter Service School for this product, you should read, in its entirety, the repair procedure you wish to perform to determine if you have the necessary tools, instruments and skills required to perform the procedure. Procedures for which you do not have the necessary tools, instruments and skills should be performed by a trained Baxter Service Technician.

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SAFETY

IMPORTANT FOR YOUR SAFETY

THIS MANUAL HAS BEEN PREPARED FOR PERSONNEL QUALIFIED TO INSTALL GAS EQUIPMENT, WHO SHOULD PERFORM THE INITIAL FIELD START-UP AND ADJUSTMENTS OF THE EQUIPMENT COVERED BY THIS MANUAL

POST IN A PROMINENT LOCATION THE INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE SMELL OF GAS IS DETECTED. THIS INFORMATION CAN BE OBTAINED FROM THE LOCAL GAS SUPPLIER

IMPORTANT

IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN UNITS AT MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE

WARNING

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

IN THE EVENT OF A POWER FAILURE, DO NOT ATTEMPT TO OPERATE THIS DEVICE.

KEEP AREA AROUND OVEN CLEAR OF COMBUSTIBLES.

DO NOT OBSTRUCT COMBUSTION AND VENTILATION OPENING ON THE OVEN.

SERVICE UPDATES

SERVICE UPDATES

February 2019

- Updated COMBUSTION ANALYSIS.

March 2018

- Updated SPECIFICATIONS.
- Updated TOUCH SCREEN INTERFACE OPERATIONS VERIFICATION.

GENERAL

INTRODUCTION

These instructions are for VersaOven™. The VersaOven™ is shipped assembled requiring minimal field assembly. All VersaOvens™ will require leveling and connection to utilities. All information, illustrations and specifications contained in this manual are based on the latest product information available at the time indicated on the cover of the manual.

UNPACKING

Remove the crating from oven and check for possible shipping damage. If the oven is found to be damaged after unpacking, save packaging material and contact the carrier within 15 days of delivery.

NOTICE

Prior to starting oven remove retainer blocks used to secure removable oven rack during shipment. There may also be zip ties securing the rack sides and the bottom rack retainer. Failure to remove shipping materials located between bake chamber ceiling and top of rack will cause damage to oven.

LOCATION

Level floor or noncombustible surface within 1/8" per foot up to 3/4" in all directions.

VersaOven™ can only be mounted on a stand.

Do not obstruct the flow of combustion and ventilation air. Keep the appliance area free and clear from combustibles.

Make sure there is an adequate supply of make up air in the room to allow for combustion.

The electrical diagram is located on the inside of the right side panel.

CLEARANCE DIMENSIONS

The VersaOven™ requires a minimum of 1" of clearance on LEFT side of the oven.

A 1" to 4" back clearance is recommended for rear utility connections.

Top of oven requires adequate clearance for servicing accessibility.

NOTE: Provisions must be made to provide adequate clearance on the right side for servicing oven.

TESTING GAS SUPPLY PIPING SYSTEM

When test pressures exceed ½ psig (14" W.C.) (3.45kPa), the oven and its individual shutoff valve must be disconnected from the gas supply piping.

When test pressures are ½ psig (14" W.C.) (3.45kPa) or less, the oven must be isolated from the gas supply piping system by closing its individual shutoff valve.

INSTALLATION CODES AND STANDARDS

VersaOven™ must be installed in accordance with:
United States

1. State and local codes.
2. National Fuel Gas Codes, ANSI-Z223.1 (latest edition), available from American Gas Association, 1515 Wilson Boulevard, Arlington, VA 22209 and 400 North Capitol Street, NW, Suite 450, Washington, DC 20001, (202) 824-7000.
3. ANSI/NFPA 96, Vapor Removal from Cooking Equipment (latest edition), available from National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269.
4. National Electrical Code, ANSI/NFPA-70 (latest edition).

Canada

1. Local codes.
2. CAN/CGA-B149-1, Installation for Natural Gas Burning Appliances and Equipment (latest edition).
3. CAN/CGA-B149-2, Installation for Propane Burning Appliances and Equipment (latest edition).
4. Canadian Electrical Code, Part 2, CSA Standard C22.1 (latest edition).

Oven Mounted on Casters

A. The installation shall be made with a connector that complies with the Standard for Connectors for Moveable Gas Appliances ANSI Z21.69 or Connectors for Moveable Gas Appliances CAN/CGA-6.16,

and a quick-disconnect device that complies with the Standard for Quick- Disconnect Devices for Use with Gas Fuel ANSI Z21.41 or Quick Disconnect Devices for Use with Gas Fuel CAN1-6.9.

B. Adequate means must be provided to limit the movement of the appliance (Safety Lanyard).

TOOLS

Standard Tools

1. Standard set of hand tools.
2. ESD (Electrostatic discharge) Protection Kit.

TEST EQUIPMENT

1. VOM with minimum of NFPA-70E CATIII 600V, UL/CSA/TUV listed. Sensitivity of at least 20,000 ohms per volt. Meter leads must also be rated at CAT III 600V.
2. Clamp on type amp meter with minimum of NFPA-70E CAT III 600V, UL/CSA/TUV listed.
3. Bacharach combustion analyzer No. 125 Fyrite, Insight Pro (Order from Bakery Support).
4. U tube manometer or equivalent.
5. Digital thermometer with 6' probe Grainger No. 4YV88 (Hobart PN: 00-538454).
6. Dwyer incline manometer Grainger No. 3T294.

SPECIAL TOOLS

1. Mini laser level self-leveling with tripod Harbor Freight No. 92703-OVGA.
2. Screwdriver set (Jeweler's).
3. 2 Ton Foldable Shop Crane with 8 Ton Ram having an 42" to 63-1/2" length boom, maximum height 103-1/2" Harbor Freight No. 35915-4VGA.
4. 3/8" Chain 20 Ft. Long with a 4700 lbs. Load rating. Harbor Freight No. 40461-7VGA.
5. 7/16" X 5-1/2" Bolts.
6. Machinist's ruler.
7. 7/16" Nuts.
8. 7/16" Fender Washers.
9. Tension / pulling tool (force gauge), Grainger No. 4VG64. Used for rack adjustment.

SPECIFICATIONS

Plumbing connections, water and waste piping, and connections shall comply with the International Plumbing Code 2003, International Code Council (ICC), or to the Uniform Plumbing Code 2003, International Association of Plumbing and Mechanical Officials (IAPMO).

NOTE: Plumbing connections must comply with applicable sanitary, safety and plumbing codes, and provide adequate backflow protection to comply with applicable federal, state and local codes.

Water connection:

- 3/8" NPTF water line connection.
- Water connection 30 - 80 psi flow (1.2 G.P.M.), max temperature 100ºF.
- Recommended hardness: 2 - 4 grains per gallon.
- TDS less than 60 ppm: Undissolved solids less than 5 ppm.
- Recommended range for silica: 0 - 13 ppm.
- Recommended pH: 7.0 - 8.0.
- Acceptable range for alkalinity: 0 - 20 ppm.
- Acceptable chloride concentration: 0 - 30 ppm.
- 0 ppm acceptable for chlorine and chloramine.

Drain connection:

- 1.5" Flex hose drain connection.

Gas connection (Gas Oven):

- ½" NPT pipe size 95,000 BTU/Hr.

SUPPLY GAS PRESSURE		INPUT BTU/HR
Natural	Propane	
5" to 14" w.c.	11" to 14" w.c.	95,000

⚠ WARNING

Electrical Grounding Instructions - This appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove tie grounding prong from this plug.

Electrical connection:

- 120V 60Hz 1 Phase 15 Amp maximum dedicated for control circuit.

** CONTROL CIRCUIT ALL OVENS			
Volts	**Amps**	**Phase**	**HZ**
120	12**	1	60
** Includes auxiliary external output.			

AUXILIARY EXTERNAL OUTPUT CIRCUIT ALL OVENS		
Volts	**Amps**	**Phase**
120	5	1

Indirect vent standard:

- Oven is located under an exhaust hood with adequate overhangs and exhaust rates to completely capture byproducts of combustion from flue. A minimum clearance of 18" must be maintained from the termination of the oven flue to the filters of the hood venting system. The hood exhaust fan must be electrically interlocked with the oven (if applicable). All services must comply with all federal, state and local codes.

NOTE:

- Oven start-up must be performed by an Authorized Servicer.
- Customer is responsible to finish installing all utilities to and from oven.
- All services must comply with all Federal, State and Local codes.
- Manufacturer reserves the right to make changes in sizes and specifications.

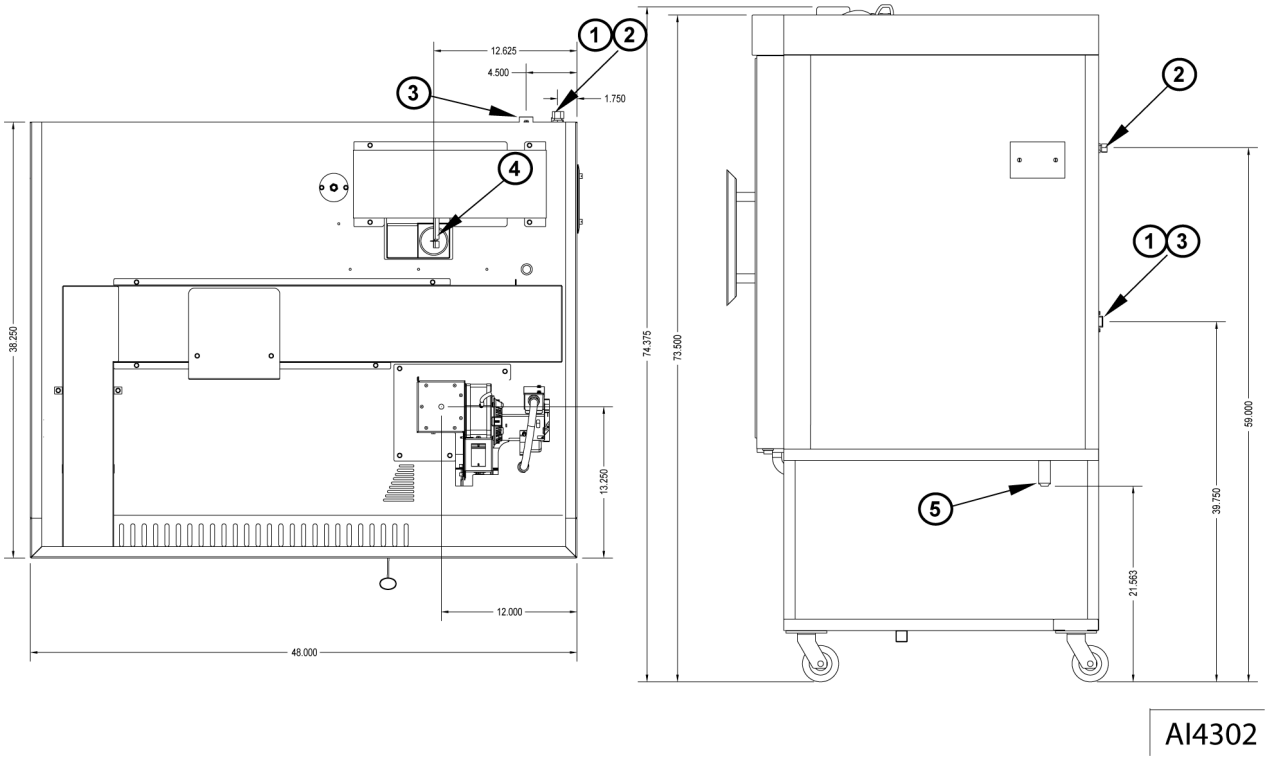


Fig. 1

1 - Water Connection

2 - Electrical Connection

3 - Gas Connection

4 - Vent

5 - Drain

UNCRATING OVEN

UNCRATING / STANDING OVEN UP

NOTE: Inspect crate for shipping damage. If there is any damage, take pictures before crating is removed.

Remove the crating from oven and check for possible shipping damage. If the oven is found to be damaged after unpacking, save packaging material and contact the carrier within 15 days of delivery.

NOTICE

Prior to starting oven, remove the retainer blocks used to secure oven grease cart in place during shipment. There may also be zip ties securing the rack sides and the bottom rack retainer. Failure to remove shipping materials located in lower base area may cause damage to oven.

Uncrating

1. Remove top panel and all four side panels of crate.



Fig. 2

2. Remove plastic covering from oven.



Fig. 3

3. At bottom of stand, remove box of loose components (Fig. 4, 1) and grease cart with containers (Fig. 4, 2).

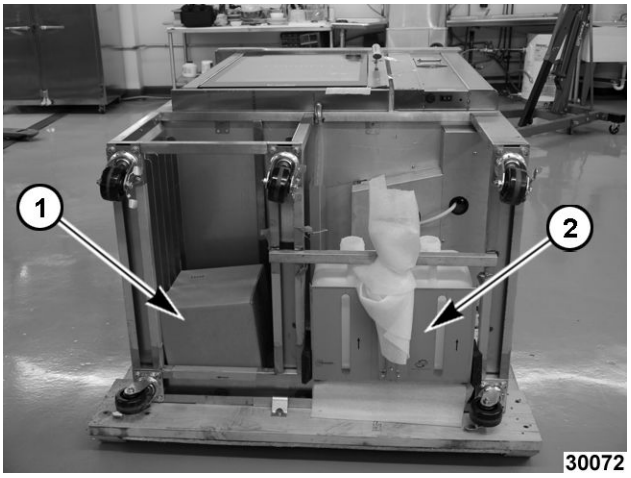


Fig. 4

4. At bottom of stand, remove metal bracket (Fig. 5, 1) (DO NOT discard) and wooden support block (Fig. 5, 2).

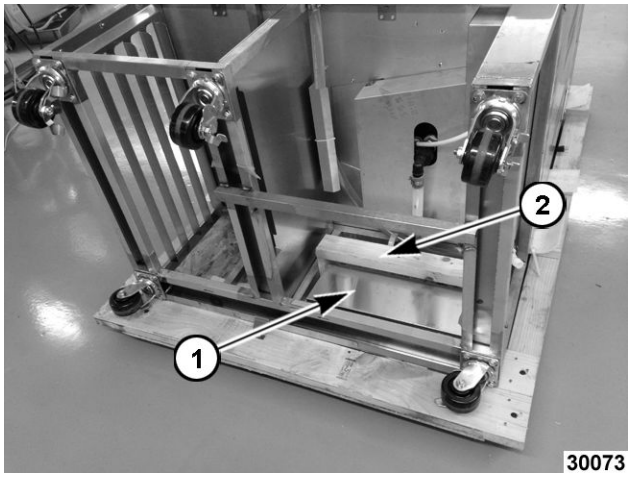


Fig. 5

5. Remove clamp at bottom of stand that is securing oven to crate.

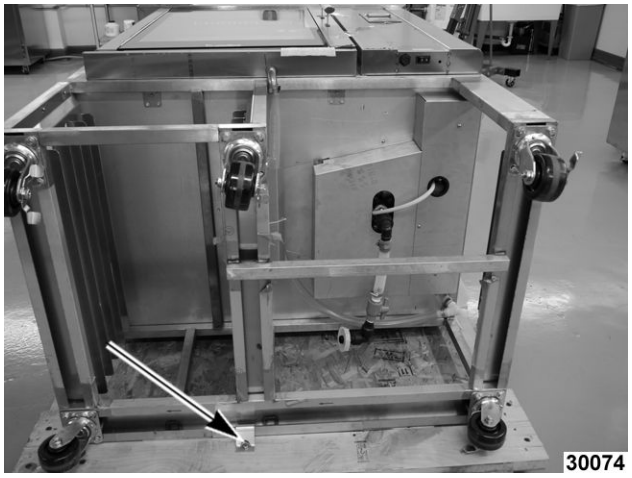


Fig. 6

Standing oven up

1. Secure lifting chains to bottom of crate using bolts, washers, and nuts.

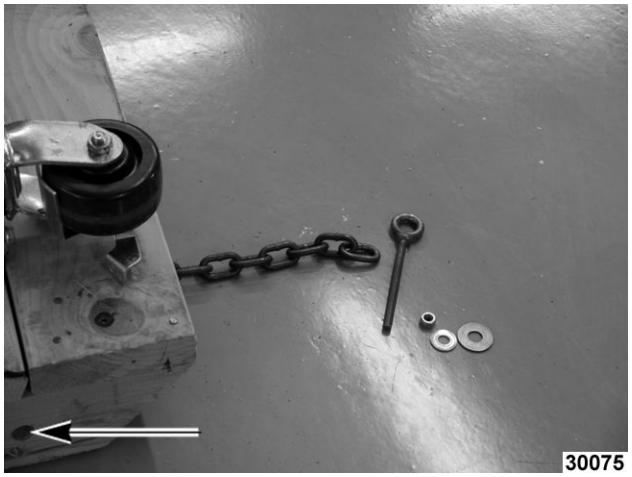


Fig. 7

NOTE: A minimum of 10" of chain needs to be at top of crate for the lift to connect to.



Fig. 8

2. Carefully lift the crate, near top of oven, using a Johnson bar.
3. Prop the crate up, using wooden blocks, to allow space for lift to fit under crate.



Fig. 9

4. Move lift under crate, and connect chain to lifting hook.



Fig. 10

5. Begin lifting crate into upright position.



Fig. 11

6. While lifting crate, allow the lift to follow the oven up to the highest position that the lift will allow.
7. Using two people, gently lower oven into upright position.



Fig. 12



Fig. 13

8. Remove lift and chains from crate.

Separating crate from oven

1. Remove brackets securing top of oven to the crate.

NOTE: There are two brackets on top of oven, one on each side. Be sure to remove both of them.

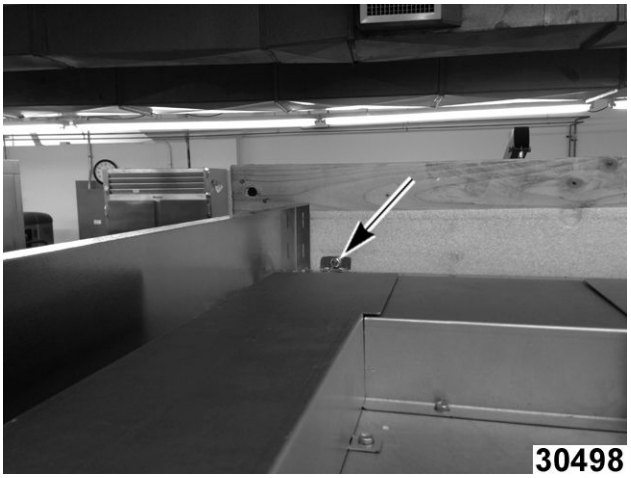


Fig. 14

2. While holding crate in upright position, nudge bottom of crate away from oven, on both sides.

NOTE: Do not try to pull top of crate down to separate it from the oven, as there is a metal bracket connected to bottom of oven stand. Doing so could cause oven to tip over.

3. When crate is separated from oven, and enough clearance is given, lay down crate in a safe location.

INSTALLING OVEN

This manual is written for the VersaOven™. Before installing oven, compare parts to packing list to ensure all parts were received. Wait as long as possible before removing plastic protective covering from panels and doors. Prior to installing oven, check facility floor or noncombustible surface ensuring it is level within 1/8" per foot, up to 3/4" maximum in all directions.

LEVELING OVEN

NOTE: Oven is preinstalled on a stand. Position oven into final location prior to leveling.

1. Check oven to be level front to back and side to side by placing level on oven rack, shim if necessary.
   A. If oven is installed on a stand with adjustable legs, rotate the foot clockwise or counterclockwise to level oven front to back and side to side.
   B. If oven is installed on casters, determine which caster needs to be adjusted.
      1) Ensure locks on casters are locked.
      2) Use a block of wood to support equipment near caster that needs adjustment.
      3) Loosen the bolt on the caster needing adjustment and insert shim(s) between the caster plate and bottom of stand.
      4) Retighten caster bolt and verify oven is level.

VENTILATION

Ventilation requirements will vary with each installation and must comply with applicable portions of the National Fire Protection Association Standards #96, #94 and with local codes.

Exhaust Fan Interlock

- A connection point (maximum 5-amps) is provided for Indirect Vent (Exhaust Hood). It is located behind the right side service panel adjacent to the 120 V power connection. Consult local codes for vent interlock requirements.

Indirect Vent (Under Exhaust Hood)

- Position the oven under an exhaust hood with adequate overhangs and exhaust rates to completely capture the by-products of combustion discharged from the flue. From the termination of the flue to the filters of the hood venting system, a minimum clearance of 18" must be maintained. The hood exhaust fan must be electrically interlocked with the oven.

INITIAL START-UP



⚠ WARNING

Disconnect the electrical power to the machine and follow lockout / tagout procedures. There may be multiple circuits. Be sure all circuits are disconnected.

NOTE: Remove all protective plastic sheeting from oven surfaces and wipe down to remove all fingerprints, prior to heating oven.

NOTE: Remove all retaining materials and ties from inside of oven.

NOTE: Check all utility connections made by others.

Verify the following

- Lanyard is installed and located properly for all gas connected equipment (only for ovens mounted on casters).
- Gas supply line shut-off valve is in the OFF position.
- Gas supplied matches data plate and gas valve on oven.
- Gas valve is in the OFF position.
- Electrical connections have been made by electrician. 120V control circuit, and powered exhaust fan interlock (external device maximum 5 amp).
- Drain connected by plumber at right rear corner of oven.
- Water line is connected by plumber located at right rear corner of oven.
- Water shut off is installed in supply line.

NOTE: If a water filtration unit is installed in water supply line, verify that a filter cartridge (supplied by customer) is installed in unit (performed by a plumber).

NOTE: Refer to oven installation checklist and complete during initial start-up.

Ignition Sequence Check.

1. Turn gas valve off to test ignition sequence check.

   NOTE: Baking compartment circulation fan will run continuously and will heat to set temp when unit is powered on.

   NOTE: Ignition module makes three attempts to light burner before locking out.

   NOTE: Remove power from ignition control module by opening the loading doors for a minimum of 5 seconds or by turning circuit breaker off and on.

2. Set oven to call for heat by entering a temperature higher than current oven temp.
3. Draft inducer energizes for 15 seconds for pre-purge cycle.
4. Igniter will spark indicating that it is energized.
5. Immediately when igniter energizes, gas valve solenoid is energized.
6. After igniter has been energized for 4 seconds, if flame sensor does not recognize a flame, power is removed from igniter and gas valve.
7. After initial try for ignition, if the burner has not lit, there will be an additional 15 second purge time.
8. LED on ignition control will flash in a three-flash sequence, if all three attempts to ignite fail. That indicates a flame recognition failure and that the control is in lock-out mode.
9. This indicates the safety lock-out circuit is functioning properly.

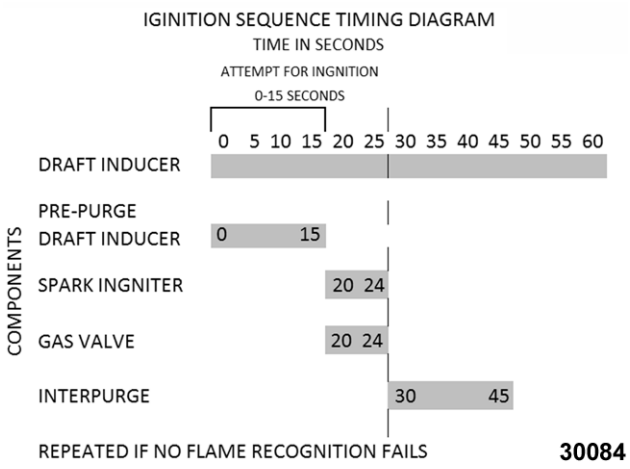


Fig. 15

GAS PRESSURE ADJUSTMENT (GAS OVENS ONLY)

NOTE: Remove all protective plastic sheeting from oven surfaces and wipe down to remove all fingerprints, prior to heating oven.

NOTE: Check all utility connections made by others.

NOTE: Refer to oven installation checklist and complete during initial start-up.



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

Gas Pressure Adjustment (Gas Ovens Only).

1. Turn off all gas supply.

NOTE: Turn off gas while attaching manometer.

2. Open control panel to access the gas valve pressure taps.
   A. Remove screws securing control panel. (Right side of oven)
   B. Slide control panel to the left about ½".
   C. Open control panel door.
3. Attach a manometer to the 1/8" NPT outlet pressure tap, and one to the 1/8" NPT inlet pressure tap on the gas valve.
4. Remove the pressure regulator adjustment cap screw from the main gas valve to access the adjustment screws.
5. Turn main gas supply on, turn oven on, then set the temperature to call for heat.

6. With the burner flame established, ensure the proper line pressure (adjust supply regulator if necessary) and adjust the outlet manifold pressure regulator to 3.5" W.C. (Natural Gas) or 10" W.C. (Propane Gas).

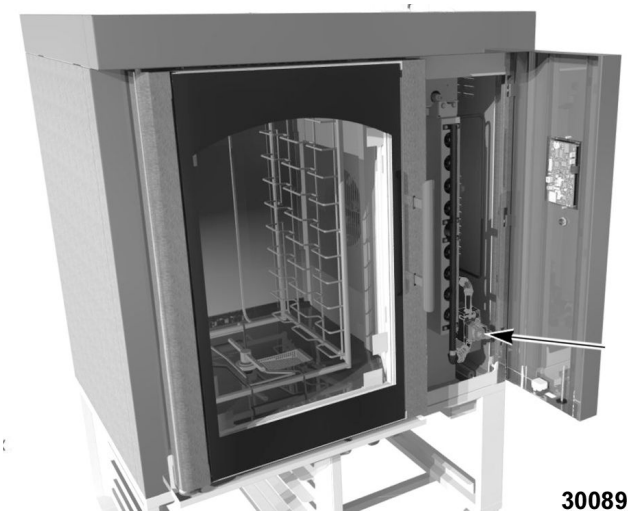


Fig. 16

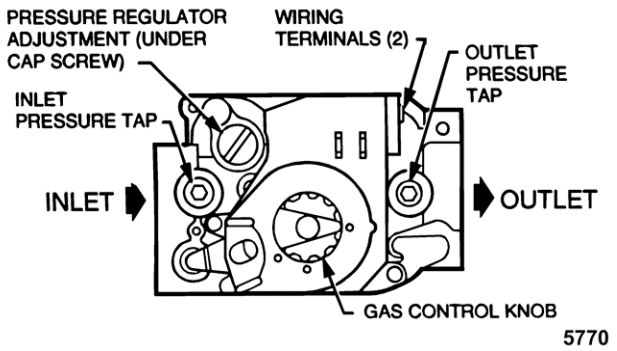


Fig. 17

DOOR SWITCH ADJUSTMENT

Door switch adjustment.

1. Apply power to machine.

NOTE: If the rack does not rotate and the circulation fan does not come on, then the door switch may be out of adjustment. The door switch is located on top of oven.

2. Access door switch on top of oven.

NOTE: Door switch cover does not need to be removed to be adjusted. Access adjustment screw through hole in cover (1, Fig. 18).

3. With the oven door closed, loosen screw securing door switch.

4. Move switch with handle located to left of cover.

5. Position door switch bracket until door switch closes.

6. Tighten adjustment screw to secure door switch.

NOTE: If unable to determine if switch is closing, adjust switches inward until switch is activated while the door is completely closed, and deactivates when door is opened no more than 2". The diagnostic screen can be used to determine state change if needed.

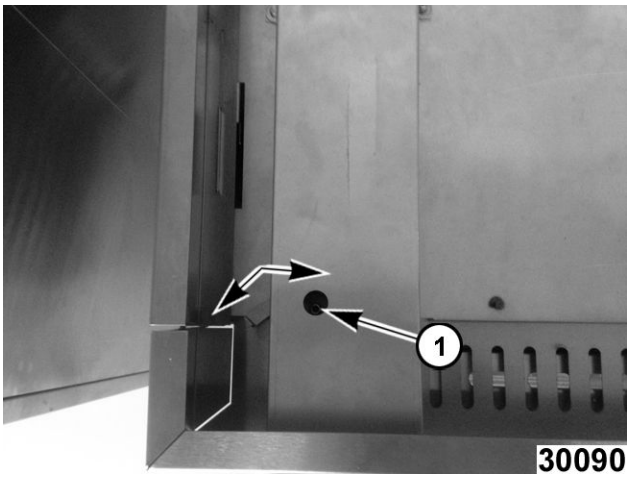


Fig. 18

RACK STOPPING POSITION ADJUSTMENT

NOTE: Remove all protective plastic sheeting from oven surfaces and wipe down to remove all fingerprints, prior to heating oven.

NOTE: Check all utility connections made by others.

NOTE: Refer to oven installation checklist and complete during initial start-up.

Rack stopping position adjustment.

1. Put oven into operation and perform rack operation test with customer's typical bake product load weight on rack. If rack does not stop in the proper rack load/unload position, perform RACK POSITION SWITCH ADJUSTMENT.

NOTE: If rack is adjusted without customer's typical bake product load weight on it, position rack approximately 5° prior to being square with the loading doors. Some under or over travel of rack positioning should be expected depending on product load. The rack rotation components are located on top of the oven.

RACK POSITION SWITCH ADJUSTMENT



⚠ WARNING

Certain procedures in this section require electrical test or measurements while power is applied to the machine. Exercise extreme caution at all times and follow Arc Flash procedures. If test points are not easily accessible, disconnect power and follow Lockout/Tagout procedures, attach test equipment and reapply power to test.

1. Remove screws and cover on top of rack position switch.
2. Put oven into operation and check for proper rack load/unload positioning.
3. Loosen bolt (1, Fig. 19) securing switch.
   - If rack stops too late, move switch clockwise (A, Fig. 19).
   - If rack stops too early, move switch counter clockwise (B, Fig. 19).
4. Repeat procedure until proper load/unload rack position is achieved.
5. Tighten bolt to secure switch, once proper rack position is acquired.

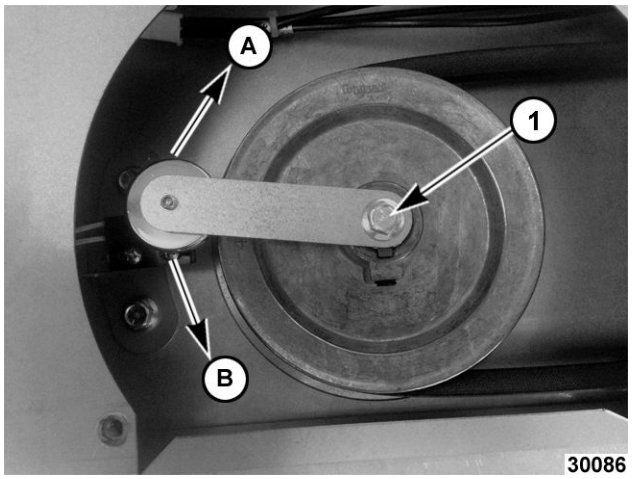


Fig. 19

TOUCH SCREEN INTERFACE OPERATIONS VERIFICATION



⚠ WARNING

Certain procedures in this section require electrical test or measurements while power is applied to the machine. Exercise extreme caution at all times and follow Arc Flash procedures. If test points are not easily accessible, disconnect power and follow Lockout/Tagout procedures, attach test equipment and reapply power to test.

NOTE: Before any verification of oven's firmware, make sure the latest software is installed on both the I/O computer and the User Interface computer. Refer to Hobart Service Resource Center (https://my.itwfeg.com/resourcecenter/Service/Bakery/Forms/AllItems.aspx) for firmware version available.

NOTE: Oven will only be able to use USB flash drives that use FAT or FAT32 file systems.

NOTE: This section is for checking the functionality of the oven. Use a Tee to connect a pressure meter to the Draft Inducer pressure switch line. Connect a Clamp Type Amp meter to wire number 21, the Circulation Fan Motor power wire. Attach the Grease Containers to the Grease Valve and route the Main Drain connection to a floor drain. Drain buckets may be used instead of a floor drain.

NOTE: Test functionality of each function by pressing appropriate button on screen. The oven will toggle function for 30 seconds automatically. If a problem occurs with the function, pressing the button again before the 30 seconds is over will cancel the function. If an error occurs, check relay by verifying relay LED (red) light is illuminated (Fig. 20), indicating relay is closed and power output is being sent to the load side of the relay.

Functionality Test Toggle Diagnostics Screen

1. Ensure power is supplied to oven.
2. Turn oven on.
3. Press Settings button on the controller.
4. On the number keypad, enter Service Access Code (**3344**) and press the green enter button.
5. Press “Maintenance” button on the controller.

6. Press “Diagnostics” button on the controller.

Cooking Function Check

1. Press the “Vent” button on the controller and ensure the Vent opens then closes after the 30 seconds.
2. Press the “Buzzer” button on the controller and ensure the Buzzer sounds.
3. Press the “Lights” button on the controller and ensure the Lights turn on.
4. Press the “Fan” button on the controller. The circulation fan has a 10 second delay before starting.

NOTE: Door must be closed for Fan to run.

5. Press the “Steam” button on the controller and ensure the Steam Solenoid operates and there are no leaks in the water supply system.
6. Press the “Hood Fan” button on the controller and ensure the red light by the Hood Fan relay turns on for 30 seconds then shuts off.
7. Enter the Rack Rotation diagnostics screen. Press “Rotate” and ensure the rack rotates freely then press “Center” and allow the rack to stop.

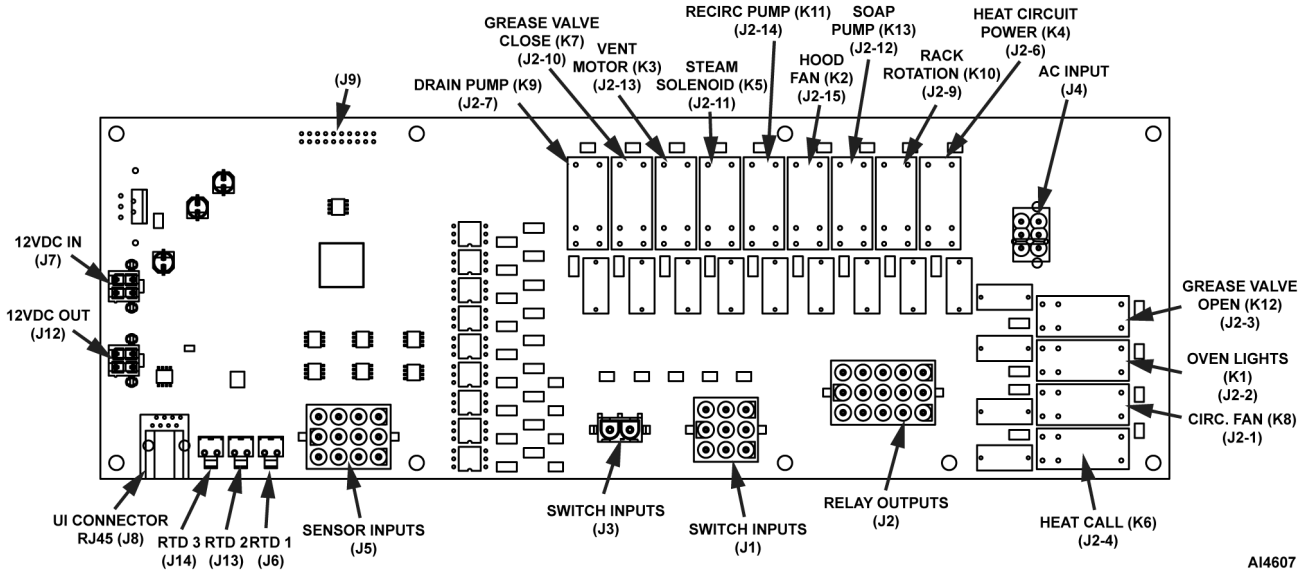


Fig. 20

VERSA OVEN WASH CHECK

NOTE: Close oven door before proceeding.

1. Select Wash in Settings/Maintenance/ Diagnostics, to test the Float Operation/Sump Protection System.

Sump Fill

- With the Grease Valve in the Open position, ensure the sump fill solenoid turns on to fill the sump then stops.

NOTE: The sump may already be full; shake oven and listen for the solenoid to click on and off.

- Ensure there are no leaks in the sump-fill water supply.

Sump Pump Down

- Ensure the Crouzet Time Down Relay is set correctly as shown below.



Fig. 21

- Press the button on the sump fill relay (#3) for 15-20 seconds to operate the sump solenoid, overfilling the sump with water.

NOTE: If button is held too long, water may come out through Grease Valve, which is acceptable, but needs to be drained into a suitable container.

- After releasing the button on the sump fill relay, oven should turn on Drain Pump, sending water down the Main Drain.

NOTE: Sump fill solenoid will energize any time the drain pump is energized.

- Once the drain pump stops running, the sump will automatically fill to the minimum level.

Sump Overtemp

- Unplug the Sump Temperature Sensor (J13) from the IO Board (Fig. 20).
- The Sump Fill Solenoid and the Drain Pump should turn on and will not shut off until the temperature sensor is plugged back in.
- If the sump is fully drained, the Sump Fill Solenoid will continue to run after the temperature sensor is plugged back in, until the sump is filled to the minimum level.
- If Sump Temperature Sensor is left unplugged for longer than 3 minutes, the oven will shut down and display an error.

NOTE: Sump Fill/Pump-Down control system is only powered when the Grease Valve is in the Open position.

Grease Valve Close

- Press the “Grease Valve – Close” button on the controller and ensure that the Grease Valve Position display changes to “Unknown” and then to “Closed” within 10 seconds.

Soap Pump

- Press the “Soap Pump” button on the controller and ensure the pump rotates freely.

NOTE: Also press the Soap Pump Button on the Control Panel, and ensure the Soap Pump operates. If there is no Soap attached to the oven AND in the fill line, the light on the Soap Pump Button will flash, and the oven will beep once every minute. When soap IS in the fill line, the light on the Soap Pump Button will be solid.

Recirculation Pump

- Press the “Recirc. Pump” button on the controller and ensure the pump operates.

NOTE: Door must be closed for pump to run.

- Look for water to come out of the Washer Arm in the oven.
- Look for any leaks in the recirculation system.

Drain Pump

- Press the “Drain Pump” button on the controller and ensure the Drain Pump operates.

NOTE: The Sump Fill Solenoid should operate at the same time.

Grease Valve Open

- Press the “Grease Valve – Open” button and ensure the Grease Valve Position display changes to “Unknown” then to “Opened” within 10 seconds. Look for a small amount of water to flow into the Grease Containers as the Grease Valve opens. Once the Grease Valve opens, the Sump Fill Solenoid should turn on to fill the sump to the minimum level.

Ignition Check

- Press the “Heat” button on the controller and wait to see if the burner lights.

COMBUSTION ANALYSIS

NOTE: Oven temperature must be 300°F or less before performing this test.

NOTE: The burner must be operating during this test.

1. Set the controller "Temp" to 400°F, bake time to 15 minutes.
2. Make sure the loading door is closed, then press "Play."
3. When asked to start anyway, press “Wait” and the oven will begin preheating to 400°F.
4. Set the Combustion Analyzer to extend into exhaust test hole 7", then turn it on and allow it to purge before putting it in the exhaust test hole.
5. Once flame is established, insert combustion analyzer meter into hole in top of the draft inducer.

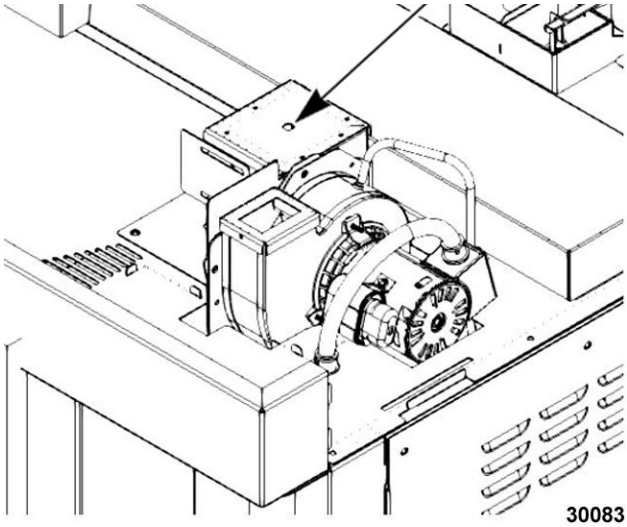


Fig. 22

6. Record the combustion readings right before the burner shuts off at 400°F.
7. The combustion readings must meet the following specifications:
   A. O2 (Not to exceed 6.5%)
   B. CO Air Free (Less than 400 ppm)
8. Record set-up information on the label provided inside the controller compartment.

NOTE: If combustion readings cannot be obtained, contact Bakery Product Support.

TEMPERATURE CALIBRATION

1. Disconnect the plug that connects to the Rotation Motor.

NOTE: Be careful not to pull the fitting out of the motor.

2. Install a wire pan in the center of the oven rack with a thermocouple attached to the center of the pan sticking up about 1” with the wire running out through the door to a thermocouple reader.

NOTE: Do not calibrate controller if the difference in temperature readings is greater than the range of the controller, replace controller or thermocouple (range Combustion and Heat Calibration ±100°F / ±38°C).

NOTE: Before calibrating the controller, the oven must maintain a constant temperature for at least one hour.

3. Fully open loading doors to verify that baking compartment circulation fan de-energizes.
4. Close loading doors and set the control baking temperature to 400°F (200°C) and bake timer for 60 minutes.
5. Allow oven temperature to stabilize (minimum 3 cycles).
6. Check the temperature reading on the thermocouple meter when the heat light on the I/O board goes out.
7. Compare the readings of the thermocouple meter and the controller temperature display.
8. If the temperature difference between the two readings is greater than ±2°F or ±1°C, adjust the temperature offset, located in Settings/ Maintenance/Temperature Calibration.
   A. If temperature test shows a temperature higher than controller, increase temperature offset, located in the temperature setting screen.
   B. If temperature test shows a temperature lower than controller, decrease temperature offset, located in the temperature setting screen.

FINAL CHECKS

1. Test for proper operation.

NOTE: Baking compartment circulation fan will remain on while oven is powered on.

2. Cool-Down:

A. Set controller "Temp" to 150°F, bake time to 1 minute.

B. Press the Play button.

C. When the preheat prompt appears, press "WAIT". This will begin the cool-down operation. The loading door can be opened at this time to aid in cooling.

D. After the oven has reached 150°F or below, stop cool-down by selecting the back button.

E. The oven can be powered off at this point if needed.